

## CLAIMS

WHAT IS CLAIMED IS:

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1. A method of measuring performance of a transaction over a network, the transaction comprising requesting information from an information source connected to the network and interacting with the information source, the method comprising:
    - connecting a data acquisition agent to the network;
    - sending a request for information from the data acquisition agent to the information source;
    - loading data responsive to the request for information onto the data acquisition agent;
    - executing the transaction;
    - collecting performance measurements for the transaction; and
    - sending the performance measurements to a storage device.
  2. The method of claim 1 wherein executing the transaction comprises simulating a transaction previously recorded between a user machine and the information source.

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3. The method of claim 1 wherein collecting performance measurements comprises collecting download time of the data in response to the request for information.

4. The method of claim 1 wherein collecting performance measurements comprises collecting number of bytes downloaded for the transaction.

5. The method of claim 1 wherein collecting performance measurements comprises identifying errors occurring during the transaction.

6. The method of claim 1 wherein the network is the Internet.

7. The method of claim 1 wherein the information source is a web server and the request for information comprises requesting a web page.

8. The method of claim 7 wherein collecting performance measurements comprises collecting download time for each web page downloaded during the transaction.

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9. The method of claim 8 wherein collecting performance measurements comprises collecting download time for individual components within each of the web pages.

10. The method of claim 1 wherein connecting a data acquisition agent to the network comprises connecting a plurality of data acquisition agents to the network at a plurality of locations.

11. The method of claim 1 further comprising displaying the performance measurements on a web site.

12. The method of claim 1 wherein executing the transaction comprises sending a query from the data acquisition agent to the information source after the data is loaded.

13. The method of claim 1 wherein executing the transaction comprises submitting an order from the data acquisition agent to the information source after the data is loaded.

14. The method of claim 1 wherein executing the transaction comprises updating state information to link web pages together within a transaction.

15. The method of claim 14 wherein updating state information comprises searching for a session ID.

16. The method of claim 14 wherein updating state information comprises searching for text.

17. The method of claim 14 wherein updating state information comprises searching for a frame.

18. The method of claim 14 wherein updating state information comprises searching for a URL.

19. The method of claim 14 wherein updating state information comprises substituting HTML text.

PATENT

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20. A system for measuring performance of a transaction over a network, the transaction comprising requesting information from a web server connected to the network and interacting with the web server, the system comprising:

a data acquisition agent connected to the network and operable to send a request for information to the web server, the agent being configured to execute the transaction with the web server, collect performance measurements for the transaction, and send the performance measurements to a storage device.

21. The system of claim 20 wherein the data acquisition agent includes a browser embedded within the agent.

22. The system of claim 20 wherein the data acquisition agent is configured to receive a previously recorded transaction between a user machine and the web server and utilize the recorded transaction to execute the same transaction with the web server.

23. The system of claim 22 wherein the data acquisition agent is configured to receive said recorded transaction over the network.

24. The system of claim 22 wherein the data acquisition agent is configured to receive instructions specifying a plurality of said recorded transactions to execute.

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25. The system of claim 24 wherein the data acquisition agent is configured to repeat execution of said specified transactions until new instructions are received.

26. The system of claim 20 wherein the performance measurements include a list of errors occurring during the transaction.

27. The system of claim 20 wherein the performance measurements comprise download time for each web page downloaded during the transaction.

28. The system of claim 27 wherein the performance measurements comprise download time for individual components within each of the web pages.

29. The system of claim 20 further comprising a monitoring device for recording when the agent last executed the transaction.

30. The system of claim 20 wherein the agent is operable to store the collected performance measurements.

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31. A method of recording a transaction over a network comprising:

- starting a recorder;
- sending a request for information from a computer to an information source over the network to begin the transaction;
- loading a page responsive to the request for information onto the computer;
- entering data on the page and sending the data to the information source;
- completing the transaction;
- stopping the recorder; and
- sending the recording of the transaction to a data acquisition agent on the network, the data acquisition agent being operable to play the recording and execute the transaction with the information source and collect performance measurements for the transaction.

32. The method of claim 31 wherein the information source is a web server and sending a request for information comprises requesting a web page.

33. The method of claim 32 wherein collecting performance measurements comprises collecting download time for each web page downloaded during the transaction.

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34. The method of claim 32 wherein collecting performance measurements comprises collecting download time for individual components within each of the web pages.

35. The method of claim 31 wherein executing the transaction comprises sending a query from the data acquisition agent to the information source after the data is loaded.

36. The method of claim 31 wherein executing the transaction comprises submitting an order from the data acquisition agent to the information source after the data is loaded.

37. The method of claim 31 wherein sending the recording comprises sending the recording to a plurality of data acquisition agents at different locations within the network.

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